

Win, Lose, or Draw

Problem:

Name _____

Period _____ ;

Date _____

Summing Up

- 1) List the molecular shapes in decreasing order of bond angle (from largest angle to smallest.)

- 2) What determines the shape of a molecule?

- 3) In the BCl_3 , the boron (the central atom) has _____ electron clouds.
In PCl_3 , the phosphorous (the central atom) has _____ electron clouds.
Explain why the geometries of BCl_3 and PCl_3 are different.

- 4) Summarize the effect of the presence of unshared electrons on the shape of a molecule.

- 5) Which shapes usually result in polar molecules? Which are usually nonpolar?

Formula	Name	Lewis Diagram	3-D Drawing	Shape	Bond Polarity	Molec. Polarity	Hybridization
CH ₄							
H ₂ O							
HCN							
CO ₂							
NH ₃							
BF ₃							
CH ₂ O							
SO ₄ ²⁻							
N ₂							
SO ₃							
CH ₃ F							